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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,775	04/28/2006	Tae-Yoon Kim	0070777-000021	9809
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EXAMINER MONSHIPOURI, MARYAM				
ART UNIT 1656		PAPER NUMBER		
NOTIFICATION DATE 06/09/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

### Office Action Summary

**Application No.**

10/577,775

**Applicant(s)**

KIM ET AL.

**Examiner**

Maryam Monshipouri

**Art Unit**

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7, 9-14 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) 9-14, 22 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-089)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date 6/2/09
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

The finality of the office action dated 2/20/2009 is withdrawn as requested by applicant. In addition, the advisory action of 5/20/2009 is also withdrawn. The amendment of 5/20/2009 is **entered**.

Claims 1-6, 8, 15-21 have been canceled. Claims 7 and newly presented claim 24 are still at issue and are present for examination. Claims 9-14 and 22-23 are withdrawn as drawn to non-elected invention.

Applicants' arguments filed on 5/20/2009 have been fully considered and are deemed to be persuasive to overcome some of the rejections previously applied. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hersh (US pat. No. 6,011,067, cited previously). As stated previously, Hersh teaches methods of treating psoriasis and dermatitis or symptoms thereof, comprising administering a composition comprising extracellular SOD (EC SOD). Applicant amended claim 7 to recite skin diseases such as skin cancer, allergy, atopy etc. in order to overcome the art.

However, said reference remains to render this invention obvious because even though Hersh does not explicitly teach a method of treating skin cancer utilizing EC SOD, it does teach that like the increased risk of skin cancer (such as coetaneous carcinoma and melanoma) caused by UV radiation, superoxides and free radical species (oxy radicals) are pathogenic of neoplasia. Hersh also teaches that release of such oxy radicals may be inhibited by EC SOD (see column 2).

Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to utilize the EC SOD of Hersh (alone or in combination with other ingredients in a pharmaceutically acceptable carriers) to treat skin cancer patients, rendering claim 7 obvious.

One of ordinary skill in the art is motivated in treating skin cancer patients in a method comprising administering EC SOD alone or in combination with other compounds because administration of EC SOD as taught by Hersh results in scavenging or inhibition of oxy radicals , which when left unattended can cause cancer metastasis in said patients.

Finally, one of ordinary skill in the art has a reasonable expectation of success in utilizing EC SOD alone or optionally, in combination with other ingredients and a pharmaceutically acceptable carrier for treating skin cancer patients because methods of treating skin diseases such as cancer with antioxidants such as EC SOD, are well established in the prior art.

Regarding claim 24, applicant is reminded that the phrase "which comprises" in line 1 of claim 24 is open language allowing for administration of ingredients such as

psoralene and ultraviolet A in addition to administering a composition consisting of ECSOD and a pharmaceutically acceptable carrier. Therefore, the suggested method of Hersh for treating psoriasis, utilizing psolarens and UVA (see column 2, lines 33-44 of Hersh) in addition to utilizing EC SOD in a pharmaceutically acceptable carrier (see column 2, lines 9-15) to inhibit oxyradicals made by such treatment (see above for details), remains to render claim 24 obvious.

**No claim is allowed.**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maryam Monshipouri whose telephone number is (571) 272-0932. The examiner can normally be reached on Tues.-Fri., from 7:00 a.m to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Maryam Monshipouri/

Primary Examiner, Art Unit 1656

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